



## CITY OF LODI COUNCIL COMMUNICATION

**AGENDA TITLE:** Adopt Resolution Authorizing City Manager to Execute Task Order No. 31 for Permit Assistance Services and Various Studies Required by City's Wastewater Discharge Permit with West Yost Associates, of Davis (\$251,000)

**MEETING DATE:** July 20, 2011

**PREPARED BY:** Public Works Director

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**RECOMMENDED ACTION:** Adopt resolution authorizing City Manager to execute Task Order No. 31 with West Yost Associates for permit assistance services and various studies required by City's wastewater discharge permit, in the amount of \$251,000.

**BACKGROUND INFORMATION:** The City's wastewater discharge permit, issued by the State Central Valley Regional Water Quality Control Board (Board), includes requirements for a number of studies to be conducted and plans or reports to be developed on various aspects of the City's wastewater treatment operations. On August 4, 2010, Council authorized West Yost Associates (WYA) to continue preparing ongoing studies required by the permit, along with assistance in meeting permit compliance requirements. The FY 2011/12 work scope and fee reflected in the attached proposal (Exhibit A) is a continuation of the permit assistance tasks that were approved by Council on August 4, 2010. It should be noted the annual costs for the FY 2011/12 permit assistance is approximately \$33,400 less than last year, as the bulk of the required studies are nearing completion. WYA has been the City's primary wastewater engineering firm since 1999. While WYA has consistently provided the City with excellent service, staff intends to distribute requests for proposals to WYA and other qualified wastewater engineering firms this fall to determine the firm best suited to support the City through its next permit cycle.

WYA has furnished the City with a combined proposal to respond to the permit requirements scheduled for FY 2011/12, including assisting City staff in regulatory program management.

The following includes a brief description of the permit-required tasks for this fiscal year; a more detailed description is included in the attached proposal.

Task 1: Project Management - This task includes ongoing project management-related activities, including general project coordination (\$7,100).

Task 2: State Board Petition Support - This task is complete and will not require additional scope or budget, now or in the future (\$0).

Task 3: San Joaquin Valley Air Pollution Control District Biosolids Rule Compliance - This task provides assistance in obtaining a variance to Biosolids Operations Rule 4565 (\$10,700).

Task 4: Regulatory Program Management - This task includes meetings and coordination efforts with the Board regarding permitting issues. This task also involves guidance related to new regulatory requirements associated with the current permit (\$18,400).

Task 5: Land Application Monitoring Coordination - This task includes coordinating development of the City's monthly land-application reports and the costs associated with the permit-required agronomist's review and certification (\$17,400).

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APPROVED:

A handwritten signature in black ink, appearing to read "Konradt Bartlam".

Konradt Bartlam, City Manager

Task 6: Compliance Studies - This task is complete and will not require additional scope or budget, now or in the future (\$0).

Task 7: Toxicity Reduction Evaluation (TRE) - Though not expected, this task is to respond to a Board-required TRE in the event of a toxicity exceedence. TRE's are very time sensitive and require an intricate series of steps that are dependent on the outcome of initial findings. If a TRE is not needed, the budget for this item will not be expended (\$93,600).

Task 8: Title 22 Engineering Report - This task includes completion of a Title 22 Engineering Report. A draft report was submitted on November 3, 2009 to the Board and the California Department of Public Health (CDPH) and is currently under review. Title 22 Reports are required for all treatment plants that supply recycled water for other than agricultural purposes (\$58,800).

Sub-Task 8.1: Additional UV System Validation Testing (Optional) - This task includes additional onsite validation testing during FY 11/12. Preliminary discussions with CDPH suggest that eight additional tests may need to be performed. If this task is required, the efforts would be combined with the remaining efforts under Task 8 so that the field work and reporting would be one consolidated effort (\$34,600).

Sub-Task 8.2: UV System Operations Review - This task includes system troubleshooting to resolve UV system performance that is not meeting standards defined by the UV validation testing. To complete this sub-task, the following will be completed: a UV troubleshooting checklist, field review, corrective maintenance and evaluation, control review and modification of the UV system programming, and final report (included in Task 8).

Sub-Task 8.3: Finalization of the Title 22 Engineering Report - On April 28, 2011, the City received comments from CDPH regarding the Draft Title 22 Report. These comments indicated the need for additional site verification prior to CDPH's approval of the report. Once approved, the Title 22 Engineering Report needs to be finalized and submitted to the State within six months. This task includes coordination with CDPH, finalization of the Title 22 Engineering Report, and coordination for the implementation of the report recommendations (included in Task 8).

Sub-Task 8.4: Title 22 Report Update - The City is under contract to provide additional recycled water to the Northern California Power Agency's (NCPA) Lodi Energy Center, which is currently in construction. The new facility is expected to be completed by summer 2012 and the Title 22 Engineering Report needs to be updated to include these additional recycled water uses. Additionally, the City has proposed modifying the effluent discharge facilities to allow flow to be split upstream of the UV system to allow summer irrigation water to bypass the UV system - significantly reducing operating costs. This task includes revising the Title 22 Engineering Report to include these additional flows to NCPA and proposed flow modifications (included in Task 8).

Task 9: Wintertime Irrigation Management Plan - This task is complete and will not require additional scope or budget, now or in the future (\$0).

Task 10: Temperature Study - This task is complete and will not require additional scope or budget, now or in the future (\$0).

Task 11: Industrial Influent Characterization Study - This task is complete and will not require additional scope or budget, now or in the future (\$0).

Task 12: Pond Freeboard Evaluation Study - This task is complete and will not require additional scope or budget, now or in the future (\$0).

Task 13: Salinity Evaluation and Minimization Plan - This task includes implementation of the Salinity Evaluation and Minimization Plan that is required of all municipal dischargers of one million gallons per day or more in the Central Valley and is intended to identify and reduce sources of salinity in the City's domestic and industrial effluent (\$3,200).

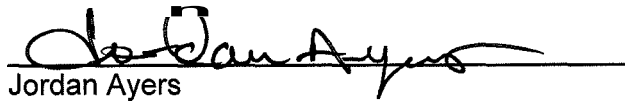
Task 14: Background Groundwater Quality and Degradation Assessment Study - This permit-required study will be implemented in accordance with the Background Monitoring Well Work Plan approved June 2008 and is intended to establish local background groundwater conditions in an effort to quantify the threat to groundwater quality associated with the City's land application practices. The finalized study was submitted on January 20, 2011. The Draft Best Practicable Treatment and Control Evaluation Work Plan (BPTC Work Plan) was submitted on December 1, 2010. This task includes continued support for the Quarterly Monitoring Report since the BPTC Technical Evaluation Report will not be completed during FY 11/12 (\$7,200).

Task 15: Effluent Characterization Study - This task is complete and will not require additional scope or budget, now or in the future (\$0).

The estimated cost for the work described above, including Optional Sub-Task 8.1, is \$251,000.

**FISCAL IMPACT:** The studies' monitoring efforts are required in the City's permit and nonperformance would subject the City to significant fines. The costs associated with this work have been anticipated in the City's Wastewater funding requirements.

<b>FUNDING AVAILABLE:</b>	Wastewater Operating Fund (170403)	\$ 154,400
	Wastewater Capital Fund (172028)	\$ 96,600
	Total	\$ 251,000

  
Jordan Ayers  
Deputy City Manager/Internal Services Director

  
F. Wally Sandelin  
Public Works Director

Prepared by Kathryn Garcia, Compliance Engineer  
FWS/KG/pmf  
Attachment  
cc: Deputy Public Works Director - Utilities



RECEIVED  
MAY 12 2011  
CITY OF LODI  
MUNICIPAL SERVICE CENTER

May 9, 2011

Mr. Charles E. Swimley, Jr.  
Deputy Public Works Director – Utilities  
City of Lodi, Municipal Service Center  
1331 South Ham Lane  
Lodi, CA 95242

SUBJECT: Proposal for Engineering Services — NPDES Permit Assistance for  
Fiscal Year 2011/2012

Dear Mr. Swimley:

West Yost Associates (West Yost) appreciates the opportunity to present to you this letter proposal for engineering services related to ongoing assistance to the City of Lodi (City) in meeting the NPDES permit requirements for the Lodi Water Pollution Control Facility (WPCF).

The Regional Water Quality Control Board (Regional Board) adopted the final NPDES permit and associated Time Schedule Order (TSO) for the City's WPCF on September 14, 2007. The scope of work presented in this proposal provides for ongoing support to complete most of the NPDES permitting requirements associated with this permit during the period between August 2011 and July 2012 (hereinafter referred to as Fiscal Year 2011/2012, or FY 11/12). This proposal assumes that the City staff will complete all of the necessary monitoring needed to achieve the objectives of the tasks outlined in the Scope of Work, and that the City will contract directly with a certified laboratory for the completion of any necessary analytical efforts. Under the Regulatory Program Management task, West Yost will provide support for coordinating these efforts with other regulatory needs.

### SCOPE OF WORK

The following scope of work defines the detailed engineering service tasks related to ongoing assistance to the City in meeting the NPDES permit compliance requirements for the Lodi WPCF. These tasks reflect efforts that have been necessary throughout the entire permit cycle and include the following:

- Task 1: Project Management
- Task 2: State Board Petition Support
- Task 3: SJVAPCD Biosolids Rule Compliance
- Task 4: Regulatory Program Management

- Task 5: Land Application Monitoring Coordination
- Task 6: Compliance Studies (Method of Compliance Work Plan, Pollution Prevention Plan and Treatment Feasibility Study)
- Task 7: Toxicity Reduction Evaluation
- Task 8: Title 22 Engineering Report
- Task 9: Wintertime Irrigation Management Plan
- Task 10: Temperature Study
- Task 11: Industrial Influent Characterization Study
- Task 12: Pond Freeboard Evaluation Study
- Task 13: Salinity Evaluation and Minimization Plan
- Task 14: Background Groundwater Quality and Degradation Assessment Study
- Task 15: Effluent and Receiving Water Characterization Study

### **Task 1. Project Management**

Task 1 includes project management related activities including general project coordination. In addition, to ensure continued achievement of consistently high quality work products, and in accordance with the West Yost Quality Assurance/Quality Control (QA/QC) policy, a West Yost staff member at the Principal Engineer level or higher will review significant work products. Under this task, brief descriptions of services performed will be included on monthly invoices.

### **Task 2. State Board Petition Support**

On July 7, 2009, the State Water Resources Control Board (State Board) adopted an Order that remanded the City's NPDES permit back to the Regional Board for reconsideration of the Title 27 exemption applicable to the WPCF storage ponds and land application area. The Regional Board has recently indicated that the desired approach would be to make the appropriate permit modification as part of the City's permit renewal process, which is expected to occur sometime in 2012. Support for the permit renewal will be handled by the City under a separate contract. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

### **Tasks 3. SJVAPCD Biosolids Rule Compliance**

In March 2007, the San Joaquin Valley Air Pollution Control District (SJVAPCD) adopted Biosolids Operation Rule 4565. This rule requires that the City implement additional controls for Volatile Organic Carbon (VOC) emissions from the City's biosolids land application practices by incorporating the biosolids into the soil within 24 hours of application. The City may not currently comply with the SJVAPCD Biosolids Operation Rule because the City applies liquid biosolids to previously planted crops, which would be destroyed during "incorporation". Therefore, if directed by the SJVAPCD, the City will need to identify and implement a compliance strategy and timeline that can be incorporated into a temporary variance. The purpose

of this task to provide assistance to the City in submitting the documentation needed to support a variance to Biosolids Operation Rule 4565 (if needed).

Deliverable: SJVAPCD Variance Request Document, if needed.

#### **Task 4. Regulatory Program Management**

West Yost anticipates that the City will continue to require ongoing assistance related to understanding general regulatory compliance issues and implementing the measures needed to achieve compliance. It is difficult to predict the level of effort needed for this task. Assistance under this task is anticipated to include one or more of the following items:

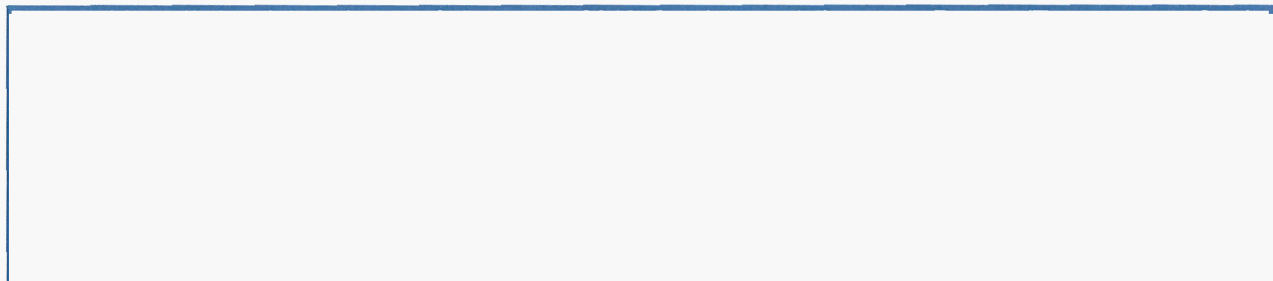
- Working with City staff to understand the permit compliance requirements;
- Maintaining and updating the attached implementation schedule for the compliance measures;
- Developing presentations for City staff, Council, and/or other consultants outlining the regulatory compliance concerns;
- Reviewing permits and other regulatory guidance documents issued by the Regional Board and SWRCB that would be applicable to the WPCF;
- Providing assistance to the City, as needed, for developing responses to Regional Board requests;
- Providing assistance in developing semi-annual permit compliance progress reports (Due February 1, 2012 and August 1, 2012);
- Coordinating efforts between all the studies and other planning-related issues;
- Helping the City to develop monitoring programs, as appropriate;
- Completing analyses of regularly collected monitoring data to identify potential future regulatory concerns;
- Providing support to the City and the PCP Cannery in addressing food processing waste disposal issues; and/or
- Attending and preparing for meetings to discuss the results of such activities outlined above.

The specific work efforts and deliverables under this task cannot reasonably be determined at this time, and the associated fee estimate presented in this letter proposal is based on West Yost's knowledge of the City's current permitting concerns. All work will be performed on a time and material basis, and monthly invoices will detail the efforts and costs. Depending on the level of effort required, a scope and budget amendment may be necessary in the future. If the estimated fee is not expended in the timeframe anticipated for this scope of services, it may be directed toward the completion of other efforts. These tasks may also require support from our legal subconsultant, Somach, Simmons and Dunn (SSD), and a small budget has also been assumed for these efforts.

It will be critical that the City's regulatory compliance efforts are completed in coordination with Regional Board staff and other regulatory authorities. It is imperative that these agencies are in agreement with the study approach and the type and amount of information to be obtained from any given study. Therefore, this task also involves the participation of West Yost staff and our subconsultants, as needed, in meetings with the appropriate regulatory agency staff. Meetings that may be required are as follows:

- Meeting with Department of Public Health (DPH) staff to discuss the draft Title 22 Engineering Report (meeting date depends on DPH review of draft report).
- Meeting with Regional Board to discuss the Pond Freeboard Study (July 2011).

A total of up to 3 additional coordination meetings are also anticipated to be required.



Bound copies of the revised version of the reports will be distributed to the Regional Board and City staff.

#### **Task 5. Land Application Monitoring Coordination**

This task involves providing the following items:

- Review the 2011 land application monitoring data and help with development of the required 2012 Annual Cropping and Irrigation Report and the 2011 Annual Biosolids Application Report;
- Review of the monthly land application reports; and
- Coordination with City staff and tenant farmers regarding collection of required monitoring data during the 2012 irrigation season.

Deliverables: Administrative Draft 2012 Annual Land Management Report and 2011 Annual Biosolids Application Report. Final 2012 Annual Land Management Report and 2011 Annual Biosolids Application Report. The administrative draft reports will be distributed in PDF format for review. Up to six (6) Bound copies of the revised version of the reports will be distributed to the Regional Board and City staff.

#### **Task 6. Studies**

The following compliance studies are required under the NPDES permit:

- Corrective Action Plan/Method of Compliance Work Plan,
- Pollution Prevention Plan, and
- Treatment Feasibility Study.

The City has fulfilled all of the obligations under Corrective Action Plan/Method of Compliance Work Plan and the Treatment Feasibility Study. In accordance with the Pollution Prevention Plan submitted September 2010, the City has committed to educating the Lodi dentistry community regarding the management practices that can help reduce the potential for mercury to be discharged from their facilities. These activities will be completed by the City and are expected to be performed by the end of September 2011.

Any minor remaining efforts for these items will be completed under the Regulatory Program Management Task (Task 4), which includes the submittal of an Annual Progress Report on August 1, 2012. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

#### **Task 7. Toxicity Reduction Evaluation**

Roberson-Bryan Inc. (RBI), in association with West Yost, completed the Toxicity Reduction Evaluation Work Plan (TRE Work Plan) in January 2008. Approval of the TRE Work Plan was provided by the Regional Board in a letter dated June 26, 2008. Implementation of the TRE Work Plan will only be required should the WPCF exceed the TRE trigger outlined in the NPDES permit. This requirement applies to all NPDES dischargers. As detailed in the TRE Work Plan, the major items that may need to be included under a TRE are as follows:

- Whole Effluent Toxicity Testing Bioassay Evaluation,
- Information and Data Acquisition,
- Facility Operations and Performance Evaluation,
- Preparation of a Final TRE Action Plan,
- Toxicity Identification Evaluation (TIEs),
- Toxicity Source Evaluation and Control, and/or
- Preparation of a TRE Report.

The efforts needed during FY 11/12 are based on the assumption that the City will need to implement one Toxicity Reduction Evaluation (TRE) as presented in the TRE Work Plan. However, if the City's monitoring does not demonstrate toxicity in the WPCF effluent, a TRE will not be necessary. If the fee outlined in this letter proposal is not expended in the timeframe anticipated for this scope of services, the budget can be directed toward the completion of future efforts at the City's direction. On the other hand, the amount of services needed to complete a TRE cannot be accurately predicted at this time because the amount of effort needed for key steps in the process, and even the sequential steps in the process itself, are largely dictated by the outcome of the bioassays and the Toxicity Identification Evaluations (TIEs).

The TIE may or may not initially be effective in identifying the constituent causing the toxicity that then needs to be controlled and initial TIE success can have a significant impact on costs. These outcomes cannot be known at this time. The amount of services needed for facility operations and performance evaluation is also dependent upon the amount of this task completed by City staff, which will likely be dependent on the timing and frequency of the toxicity exceedances. Therefore, the scope of work for this task is limited to the budget allocated in this

letter proposal. In the event that a TRE requires services beyond that scoped and budgeted herein, West Yost would, upon request, submit a separate proposal for additional services. The budget also assumes that the City will contract directly with the bioassay laboratory for all TRE bioassay and TIE analytical work.

Finally, because TREs are an intricate series of steps and assessments over time, with the exact nature of activities in latter tasks largely dictated by the outcome and findings in the initial tasks, the proper and efficient conducting of a TRE requires extensive technical oversight, coordination, and direction. Therefore, this task provides budget for such services as well as miscellaneous services provided during the TRE process not specifically covered under other the specific TRE items listed above.

Given their expertise, RBI would serve as the technical lead for this work. However, West Yost will provide support and coordination in completing these efforts. Coordination meetings required in FY 11/12 in support of completing this task will be covered under the Regulatory Program Management Task (Task 4) described above.

#### **Task 8. Title 22 Engineering Report**

West Yost completed the Title 22 Engineering Report Work Plan (Title 22 Work Plan) in April 2008. Approval of the Title 22 Work Plan was provided by the Regional Board in a letter dated June 18, 2008. The Draft Title 22 Engineering Report was submitted to the Regional Board and DPH on November 3, 2009. The City has coordinated with Regional Board staff on this report, and received no comments. The City has received comments from CDPH regarding the validation testing of the UV system that was completed as part of the Title 22 Report; however, specific comments on the remaining content of the Title 22 Report have not been received. This task involves the efforts needed to complete the Title 22 Report as well as efforts related to improved operations of the City's UV disinfection system.

##### **Subtask 8.1. Additional UV System Validation Testing (Optional)**

The City proposed in the Title 22 Report that a site-specific control equation be programed into the City's UV system based on the validation testing completed at the City's site. However, in a letter dated December 17, 2010, CDPH requested that additional validation testing be performed to verify the accuracy of the proposed equation. West Yost is currently working with the City, CDPH, and our subconsultant, Carollo Engineers, to determine if the control equation issue can be resolved without the need for additional testing. Therefore, it is not clear at this time whether additional system testing will be necessary.

If it is concluded that additional onsite validation testing is necessary, this work will need to be completed during FY 11/12. Preliminary discussions with CDPH suggest that 8 additional tests would likely need to be performed, which would require approximately 20 hours of field time for two field staff. This additional effort would be provided by staff from Carollo Engineers. Assistance from WPCF staff will also be needed in the operation of the UV system during this testing. Carollo Engineers will also prepare a final report which details the evaluation and findings of this work. This report will include a revised operational formula for the system.

Note that if it is determined that additional site-specific validation testing is necessary; the efforts described in this subtask would be combined with the efforts described under subtask 8.2, such that the field work and reporting would be combined into one, consolidated effort.

Deliverable: Administrative Draft and Final UV System Report. If this subtask is performed, the report will be combined with the reporting efforts described under Subtask 8.2. The administrative draft report will be distributed in PDF format for review. A PDF copy and up to eight (8) bound copies of the revised version of the report will be provided to the City for submission to Regional Board and CDPH staff.

### Subtask 8.2. UV System Operations Review

The City has indicated that the UV system performance does not meet the standards defined by the UV validation testing. It is suspected that there are a number of compounding operational and technical issues that have resulted in this condition. To resolve these issues, the City has requested that system troubleshooting be performed by West Yost's subconsultant, Carollo Engineers. The following tasks will be provided:

- Carollo will prepare a UV troubleshooting checklist based upon past experience with this subject. The checklist will contain items that result in UV system performance issues, as well as methods to determine the most significant problem factor. Potential performance items include solids in the channel, regrowth, sample location, sleeve fouling, lamp aging, reactor controls, reactor influent hydraulics, power non-uniformity, and other factors.
- Field review by two of Carollo's staff. This will be a one day examination of lamps, sleeves, channels, dose controls, sample locations, etc. The goal is to document the current state of system operations and maintenance. WPCF staff assistance will be needed for much of this review.
- After the initial evaluation is complete, one Carollo staff will return and work with WPCF staff on corrective maintenance and evaluation. This work may include channel cleaning, sleeve cleaning, lamp replacement, control system evaluation, power monitoring, and testing of different banks in operation (to understand hydraulic impacts). It is estimated that one Carollo staff will be on site for a total of three days for this effort. One WPCF staff person (or more) will need to be available during this period to lead the maintenance efforts under Carollo's guidance.
- As mentioned above, the City is working with CDPH to define the appropriate control equation to be used for the City's UV system. Regardless of whether additional testing is needed (as described in subtask 8.1), the City's UV system programming will need to be modified. Carollo will work with Trojan to detail the necessary control changes and to later verify that the control changes are properly functioning. The former effort will be conducted by phone while the latter effort will be conducted in the field.
- Prepare a final report which details the evaluation and findings of this work. This report will include a recommended operations and maintenance plan for the WPCF's UV system.

Deliverable: Administrative Draft and Final UV System Report. If subtask 8.1 is performed, the report will be combined with the reporting efforts described under Subtask 8.1. The administrative draft report will be distributed in PDF format for review. A PDF copy and up to eight (8) bound copies of the revised version of the report will be provided to the City for submission to Regional Board and CDPH staff.

### Subtask 8.3. Finalize Title 22 Report

On April 28, 2011, the City received comments from CDPH regarding the Draft Title 22 Report. In accordance with the City's permit, the Final Title 22 Report should be submitted within six months of "final approval" of the draft Title 22 Report. A review of the April 2011 comment letter indicates that some additional site verification is needed before the Title 22 Report can be "approved." West Yost is currently working with the City to perform this verification and the outcome of this effort will dictate the level of effort needed to finalize the Title 22 Report. Nevertheless, some portion of the report finalization will occur during FY 10/11 under West Yost's current contract with the City.

However, given the uncertainties regarding both the April 2011 comment document and the status of the UV validation process, it is assumed that the Title 22 Report will ultimately be finalized during FY 11/12. Once the coordination efforts with CDPH are complete, West Yost will provide an administrative draft of the Final Title 22 Report to the City for review and revision prior to submission of the Final Title 22 Report to the Regional Board and DPH. The Regional Board and DPH coordination meetings, as well as coordination with the City to implement the Title 22 recommendations, that are needed in support of completing this task during FY 11/12 will be covered under the Regulatory Program Management Task (Task 4) described above.

Deliverables: Administrative Draft and Final Title 22 Engineering Report. An administrative draft version of the Final report will be distributed in PDF format for City review. Up to eight (8) bound copies of the Final Report will be distributed to the Regional Board, DPH, and City staff.

### Subtask 8.4. Title 22 Report Update

One of the uses for the City's recycled water is the Northern California Power Agency (NCPA) cogeneration facility located adjacent to the WPCF. NCPA is in the process of expanding the cogeneration facility. The new Lodi Energy Center will be a 280-MW, natural gas-fired, combined-cycle power plant. Currently, the two-year construction project is scheduled to be complete in summer 2012. The City will need to update the WPCF Title 22 Report and obtain approval from CDPH prior to sending recycled water to the new facility.

The City is also proposing to modify the effluent discharge facilities to allow for flow to be split upstream of the UV system. This modification will allow the City during the summer months to bypass the flow used for irrigation around the UV system – significantly reducing operating costs. This change in operation will also need to be included in the City's Title 22 Report.

At this time, it is expected the Title 22 Report Updates will be completed after the City has received comments from CDPH on the previously submitted Draft Title 22 Report and that the Final Title 22 Report will be reissued with an addendum document.

Deliverables: Administrative Draft and Final Addendum to the Title 22 Engineering Report. An administrative draft version of the Report Addendum will be distributed in PDF format for City review. Up to eight (8) bound copies of the Report Addendum will be distributed to the Regional Board, DPH, and City staff.

### **Task 9. Wintertime Irrigation Management Plan**

West Yost completed the Wintertime Irrigation Management Plan in December 2008. This document described the actions that will be taken by the City to minimize potential water quality impacts during flooding events that would cause washout of wastewater or biosolids from the land application area. There are no direct actions needed to document implementation of the Wintertime Irrigation Management Plan. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

### **Task 10. Temperature Study**

RBI, in association with West Yost, completed the Temperature Study Work Plan for the White Slough WPCF Effluent and Downstream Water Bodies (Temperature Study Work Plan) in April 2008. Approval of the Temperature Study Work Plan was provided by the Regional Board in a letter dated June 26, 2008. The Temperature Study was initiated on July 22, 2008 and was completed April 1, 2010. The final report was submitted to the Regional Board on June 30, 2010.

The Regional Board has recently indicated that their desire is to provide the permit modifications associated with the Temperature Study in the City's next permit. Support for the permit renewal will be handled by the City under a separate contract. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

### **Task 11. Industrial Influent Characterization Study**

West Yost completed the Industrial Influent Characterization Study Work Plan (Industrial Characterization Work Plan) in April 2008. Approval of the Industrial Characterization Work Plan was provided by the Regional Board in a letter dated June 26, 2008. The Industrial Characterization began in August 2008 and will end in August 2010. The Final Report was submitted November 9, 2010.

Therefore, the City has fulfilled all of the obligations under this task. Any minor remaining efforts for this item will be completed under the Regulatory Program Management Task (Task 4), which includes the submittal of an Annual Progress Report on February 1, 2012. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

### **Task 12. Pond Freeboard Evaluation Study**

Wallace-Kuhl & Associates (WKA), in association with West Yost, completed the City of Lodi Pond Study Geotechnical Engineering Work Plan and Implementation Schedule (Pond Study Work Plan) in October 2008. Approval of the Pond Study Work Plan was provided by the Regional Board in a letter dated July 13, 2009. In accordance with the City's NPDES permit, the final Pond Freeboard Evaluation report will be submitted by August 2011, under the City's existing contract with West Yost.

If necessary, findings from the Pond Freeboard study will be incorporated into the City's next permit. Support for the permit renewal will be handled by the City under a separate contract. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

### Task 13. Salinity Evaluation and Minimization Plan

The Salinity Evaluation and Minimization Plan was submitted to the Regional Board on October 30, 2008. The Regional Board Executive Officer approved this Plan on September 29, 2009. The City must provide annual reports (due on August 1) demonstrating reasonable progress in the reduction of salinity in its discharge to Dredger Cut and the Agricultural Fields. West Yost efforts under this task will be to develop the salinity data documentation that will need to be included in the August 2012 Annual Progress Report (completed under the Regulatory Program Management Task).

Deliverables: Documentation of the City's 2010/2011 Salinity Evaluation and Minimization activities for inclusion in the August 2012 Semi-Annual Progress Report. The August 2012 Semi-Annual Progress Report will be provided under Task 4.

### Task 14. Background Groundwater Quality and Degradation Assessment Study

West Yost completed the revised Background Monitoring Well Installation Work Plan (Monitoring Well Work Plan) in May 2008. The Regional Board approved this Work Plan on June 4, 2008. In accordance with the Monitoring Well Work Plan, three "background" monitoring wells were installed in December 2008. A Draft Background Groundwater Quality Characterization Report was submitted on August 1, 2010, and a Final Background Groundwater Quality Characterization Report was development based on Regional Board comments and submitted January 20, 2011.

The Background Groundwater Quality Report demonstrated that the water quality in *one* of the WPCF onsite wells has concentrations of nitrate that are statistically greater than background water quality and cannot be attributed on "naturally occurring" onsite conditions. However, the City is in the process of constructing a biosolids dewatering facilities that will provide for increased the control of biosolids applications – potentially eliminating the observed elevated nitrate levels. Several wells also exhibited elevated levels of manganese; however, additional data collection is needed to determine if these levels have the potential to be caused by City operations.

The City submitted a Draft Best Practicable Treatment and Control Evaluation Work Plan (BPTC Work Plan) on December 1, 2010 that set forth a scope and three-year schedule for completing a Comprehensive BPTC Technical Evaluation Report. The purpose of the Comprehensive BPTC Technical Evaluation Report is to define the *additional* BPTCs needed at the WPCF to control the discharge of constituents that exceed both background levels and the applicable Basin Plan criteria. The proposed three year schedule to complete the Comprehensive BPTC Technical Evaluation 'Report is based on the time needed to complete, and evaluate the benefits of, the City's biosolids dewatering project and to collect additional manganese data. The City will be working with the Regional Board over the next few weeks to determine if modifications are needed to the Draft Work Plan prior to finalization; however, at this time it is not expected that such changes will be necessary. Efforts related to finalizing the BPTC Work Plan are expected to be completed under the City's existing contract with West Yost.

Given the proposed timeline for completing the BPTC Technical Evaluation, it is expected for purposes of this proposal that the Comprehensive BPTC Technical Evaluation Report will not be completed during FY 11/12. Therefore, additional efforts related to the characterization of background groundwater conditions and the BPTC evaluations are not needed at this time.

West Yost efforts during FY 11/12 will include continued Quarterly Monitoring Report Support. Specifically, West Yost will develop ongoing statistical analyses of the collected quarterly groundwater data to determine if the water quality in the onsite wells exceeds the background concentrations. Constituents found to exceed background levels will be identified. In addition, West Yost will develop contour maps using the water level data collected by the City.

appropriate). Figures depicting the contour information to be included in the Quarterly Reports.

#### **Task 15. Effluent and Receiving Water Characterization Study**

A Work Plan for the completion of an Effluent and Receiving Water Characterization Study (Characterization Study Work Plan) was submitted on March 14, 2010. The Characterization Study Work Plan describes the monitoring program that will be completed by the City to ensure adequate data is available to develop the City's next permit. In accordance with the Characterization Study Work Plan, quarterly monitoring will be completed between the fourth quarter of 2010 and the third quarter of 2011. Most of the data collected under this effort will be included in the City's Report of Waste Discharge submittal, which is due to the Regional Board by March 4, 2012. The City will collect data due "once per permit term" under the Work Plan. It is assumed that this data will be submitted by City staff on the first day of the calendar month following this sampling event. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

#### **PROJECT BUDGET**

The total fee for the scope of work described above is estimated to be \$251,000. A summary of the project costs by task is shown in Table 1. West Yost will perform all work on an hourly basis at standard company charge rates, and will not exceed the estimated cost without written authorization. If additional budget is required to complete work identified herein, West Yost will request City authorization prior to exceeding the budget.

**Table 1. Estimated Fee for FY 11/12 Permit Implementation Support**

Task	West Yost Fee, dollars	Subconsultant Fee, dollars				Total Estimated Fee, dollars
		RBI	SSD	Carollo	BioVir Laboratories	
Task 1. Project Management	7,100	--	--	--	--	7,100
Task 2. State Board Support	--	--	--	--	--	--
Task 3. SJVAPCD Biosolids Rule Compliance	10,700	--	--	--	--	10,700
Task 4. Regulatory Program Management	12,900	--	5,500	--	--	18,400
Task 5. Land Application Monitoring Coordination	17,400	--	--	--	--	17,400
Task 6: Compliance Studies	--	--	--	--	--	--
Task 7: Toxicity Reduction Evaluation	15,000	78,600	--	--	--	93,600
Task 8: Title 22 Report	24,600	--		34,200	--	58,800
<i>Optional Subtask 8.1</i>	<i>3,000</i>			<i>22,800</i>	<i>8,800</i>	<i>34,600</i>
Task 9: Wintertime Irrigation Management Plan	--	--	--	--	--	--
Task 10: Temperature Study	--	--	--	--	--	--
Task 11: Industrial Influent Characterization Study	--	--	--	--	--	--
Task 12: Pond Freeboard Study	--	--	--	--	--	--
Task 13: Salinity Evaluation and Minimization Plan	3,200	--	--	--	--	3,200
Task 14: Background Groundwater Analysis	7,200	--	--	--	--	7,200
Task 15: Effluent Characterization Study	--	--	--	--	--	--
<b>Total Estimated Fee</b>	<b>98,100</b>	<b>78,600</b>	<b>5,500</b>	<b>34,200</b>	<b>--</b>	<b>216,400</b>
<b>Total Optional Estimated Fee</b>	<b>101,100</b>	<b>78,600</b>	<b>5,500</b>	<b>57,000</b>	<b>8,800</b>	<b>251,000</b>

## SCHEDULE

Work will begin upon notice to proceed from City, and is expected to be completed by August 1, 2012. A detailed schedule showing all of the permit compliance activities is also attached and will be maintained by West Yost throughout the duration of this contract. West Yost and our sub-consultants will provide additional services related to the studies needed under the renewed permit, subject to mutually agreeable adjustments to the scope, authorized budget, and schedule.

Mr. Charles E. Swimley, Jr.  
May 9, 2011  
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West Yost appreciates the opportunity to provide additional permitting services to the City. Please contact me if you have any questions or need additional information.

Sincerely,

WEST YOST ASSOCIATES

A handwritten signature in black ink, appearing to read 'Kathryn E. Gies', written in a cursive style.

Kathryn E. Gies  
Principal Engineer

cc: Mr. Wally Sandelin, P.E., City of Lodi  
Ms. Kathryn Garcia, P.E., City of Lodi  
Mr. Del Kerlin, City of Lodi

RESOLUTION NO. 2011-117

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING  
THE CITY MANAGER TO EXECUTE TASK ORDER NO. 31  
WITH WEST YOST ASSOCIATES FOR PERMIT ASSISTANCE  
SERVICES AND VARIOUS STUDIES REQUIRED BY THE  
CITY'S WASTEWATER DISCHARGE PERMIT

=====

WHEREAS, the City's wastewater discharge permit includes requirements for a number of studies to be conducted and plans or reports to be developed on various aspects of the City's wastewater treatment operations; and

WHEREAS, on August 4, 2010, Council authorized West Yost Associates to continue preparing ongoing studies required by the permit, along with assistance in meeting permit compliance requirements; and

WHEREAS, West Yost Associates has furnished the City with a combined proposal to respond to the permit requirements for fiscal year 2011/12, including assisting City staff in regulatory program management; and

WHEREAS, the studies' monitoring efforts are required in the City's permit and nonperformance would subject the City to significant fines; and

WHEREAS, the estimated cost for this work is \$251,000.

NOW, THEREFORE' BE IT RESOLVED that the Lodi City Council does hereby authorize the City Manager to execute Task Order No. 31 with West Yost Associates, of Davis, California, in the amount of \$251,000, to provide permit assistance services and various studies required by the City's wastewater discharge permit issued by the State Central Valley Regional Water Quality Control Board.

Dated: July 20, 2011

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I hereby certify that Resolution No. 2011-117 was passed and adopted by the City Council of the City of Lodi in a regular meeting held July 20, 2011, by the following vote:

AYES: COUNCIL MEMBERS – Hansen, Katzakian, Mounce, Nakanishi, and  
Mayor Johnson

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None

  
RANDI JOHL  
City Clerk

2011-117